

## Prototype 2nd-Order System

Consider the following transfer function:

$$H(s) = \frac{\omega_n^2}{s^2 + 2\zeta\omega_n s + \omega_n^2}$$

Comments:

- ▶  $\zeta > 0, \omega_n > 0$  are arbitrary parameters
- ▶ the denominator is a general 2nd-degree monic polynomial, just written in a weird way
- ▶  $H(s)$  is normalized to have DC gain = 1 (provided DC gain exists)